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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/622,847

07/18/2003

David Vaughnn

A126.115.102

4764

25281

7590

12/19/2005

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EXAMINER

WARD, JOHN A

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

10/622,847

Applicant(s)

VAUGHNN, DAVID

Examiner

John A. Ward

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 9 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/>Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: it is not clear of the relationship of the claimed "gate angle", a thin film gate and how it relates to an sphere as cited in claim 9 and how the thin film related to a series of light as cited in claim 15.

Claims 10-14 and 16-20 are rejected because of its dependency upon claims 9 and 15 respectively.

**As best understood regarding claims 9-20, the following rejection is given.**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zou et al (US 6,186,649).

Regarding claim 9, Zou et al discloses a linear illumination source and systems having a illuminating source 402, a transmissive substrate 418, an integrating sphere 404 and column 10, lines 61-67 teaches that the substrate 418 can have a thin film coating.

Regarding claim 10, Zou et al teaches how the illuminating source transmit it's light through the thin film (column 10, lines 61-67 and column 11, lines 1-3).

Regarding claim 13, Zou et al shows in figure 12 the illuminating source 402 is located inside the integrating sphere 404.

Claims 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zou et al as applied to claim above, and further in view of own admitted prior art of applicant.

Regarding claims 11, 12 and 14 Zou et al discloses all the limitations of the claimed invention including a illuminating source, light transmission and a integrating

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sphere, but does not disclose a plurality of micro retro reflectors located on a portion of an inner surface of the integrating sphere, a illuminating source located outside the sphere or a second illuminating source located outside the sphere.

Regarding claims 11 and 12, teaches in column 8, lines 44-46, of Zou et al that a reflective layer can be found inside the integrating sphere.

The admitted prior art as cited by the applicant teach on page 5 of specification that a micro retro reflector can be found inside of the sphere.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the reflective inner area of the integrating sphere of Zou et al with the micro retro reflector as taught by the applicant in order to provide a reflective layer increase the illumination towards the light guide.

Regarding claim 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the light source outside the sphere, since it has been held that rearranging parts of an invention involves only routine skill in the art. ***In re Japiske, 86 USPQ 70.***

Regarding claim 14, It would have been obvious to one having ordinary skill in the art at the time the invention was made to add an additional lamp, since it has been held that a mere duplication of the essential working parts of a device involves only routine skill in the art. ***St. Regis Paper Co. v. Regis Co., 193 USPQ 8.***

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zou et al (US 6,186,649).

Regarding claim 15, Zou et al discloses a linear illumination source and systems having a illuminating source 402, a transmissive substrate 418, an integrating sphere 404 and column 10, lines 61-67 teaches that the substrate 418 can have a thin film coating.

### ***Response to Arguments***

Applicant's arguments filed September 26, 2005 have been fully considered but they are not persuasive.

Regarding page 6 of the remarks by the applicant regarding the 112 2<sup>nd</sup> paragraph rejection has been corrected by amending claims 9 and 15 which allegedly now provide all the essential elements of the claim elements of claims is traverse by the examiner for the following reasons one, it is not clear what is meant by the term "gate angle" that cited in claims 9 and 15 and second the claims is not written that one of ordinary skill in the art to understand the claim invention. The term "gate angle" is not clearly defined in the specification, therefore as best understood the above rejection was given regarding claims 9-15.

Applicant's arguments with respect to claims 9-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

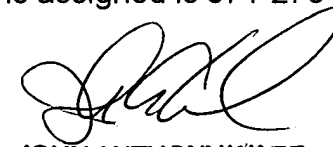
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Ward whose telephone number is 571-272-2386. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




**JOHN ANTHONY WARD**  
**PRIMARY EXAMINER**

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAW  
December 1, 2005



**JOHN ANTHONY WARD**  
**PRIMARY EXAMINER**